March 30, 2017

VIA ELECTRONIC FILING

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: Ex Parte Presentation, *Use of Spectrum Bands Above 24 GHz for Mobile Radio Services*, GN Docket No. 14-177; IB Docket No. 15-256; RM-11664; WT Docket No. 10-112; IB Docket No. 97-95.

Dear Ms. Dortch,

On March 28, 2017, Scott Bergmann, Paul Anuszkiewicz, and Kara Romagnino of CTIA; Richard Engelman and Garrie Losee of Sprint; John Hunter of T-Mobile; Charla Rath of Verizon; and Tom Dombrowsky of DLA Piper (for CTIA), met with Nese Guendelsberger, Joel Taubenblatt, Blaise Scinto, John Schauble, and Matthew Pearl (by phone) of the Wireless Telecommunications Bureau to discuss the above-captioned proceedings.

During the meeting, CTIA provided the Commission staff with the attached information sheet, which highlights that the keys to U.S. 5G leadership are sufficient spectrum resources and modernized infrastructure policies that enable efficient small cell deployment. As noted in a recent report from Accenture Strategy, the wireless industry stands ready to invest $275 billion over the next seven years to deploy 5G; this is in addition to the $200 billion already invested by the wireless industry since 2010. This investment in 5G is poised to generate $500 billion in economic growth, create three million new jobs, and enable breakthrough innovations in public safety, transportation, healthcare, energy, other sectors of our economy.[1]

[1] *Smart Cities: How 5G Can Help Municipalities Become Vibrant Smart Cities*, Accenture Strategy (Jan. 2017), https://www.ctia.org/docs/default-source/default-document-library/how-5g-can-help-municipalities-become-vibrant-smart-cities-accenture.pdf; *see also Wireless Connectivity Fuels Industry Growth and Innovation in Energy, Health, Public Safety, and Transportation*, Deloitte and CTIA (Jan. 2017), http://www.ctia.org/docs/default-source/default-document-library/deloitte_20170119.pdf.

CTIA applauded the Commission for taking a critical first step in unlocking high-band spectrum to enable these benefits. In particular, we highlighted the careful balance the Commission created in the *Spectrum Frontiers Order* to allow for rapid and flexible deployment of 5G services in the 28 GHz and 37.6-40 GHz bands while also permitting use for satellite services. The licensing framework adopted for those bands was fully vetted and provides flexibility for Fixed Satellite Service ("FSS") providers, as noted by one FSS provider in the record. CTIA urged the Commission to reject requests to revisit the licensing and technical framework or to impose additional limitations on terrestrial mobile deployment in these bands.

CTIA also supported the Commission moving forward with making the 24 GHz, 32 GHz, 42 GHz, 47 GHz, and 50 GHz bands available for licensed, terrestrial services and to not overlook the opportunity to create a contiguous 5.5 gigahertz block of spectrum by likewise authorizing the 40-42 GHz band for terrestrial operations. America's 5G leadership will depend on a mix of low-, mid-, and high-band spectrum, and CTIA encourages the Commission to evaluate opportunities in each of these frequency ranges to foster next-generation wireless networks and technologies. Additionally, although the wireless industry requires a mix of licensed and unlicensed spectrum, CTIA noted the disparity in spectrum allocated for licensed and unlicensed uses in this proceeding and asked the Commission to more equitably balance these allocations by licensing the 66-71 GHz band for licensed, exclusive use. In addition, CTIA asked the Commission to allocate the 37-37.6 GHz band for licensed use, with licenses conditioned on coordination with federal parties.

Finally, CTIA urged the Commission to reconsider the cybersecurity requirements adopted in this proceeding. The Commission failed to provide notice or a reasoned explanation for these requirements, and such provisions are unnecessary given the wireless industry's consistent track record of deploying and integrating cybersecurity protective measures.

Pursuant to Section 1.1206 of the Commission's rules, a copy of this letter is being filed in ECFS and provided to the Commission participants. Please do not hesitate to contact the undersigned with any questions.

Sincerely,

/s/ Scott K. Bergmann

Scott K. Bergmann
Vice President, Regulatory Affairs
CTIA

Attachment

cc: Nese Guendelsberger
Joel Taubenblatt
Blaise Scinto
John Schauble
Matthew Pearl

High Band Spectrum

KEY TO U.S. 5G LEADERSHIP

The FCC can take concrete steps to help speed and facilitate next-generation wireless investment.

The Next Generation of Wireless.

To meet the demand for everything wireless, we're enhancing today's 4G networks and preparing for 5G. Faster, more responsive, and connecting more devices, 5G will unlock innovation and investment, transforming every sector of our economy. To make 5G a reality, our networks need more capacity, which means installing thousands of small cells—antennas the size of a pizza box—located everywhere from utility poles and street lamps to sides and rooftops of buildings and water towers.

New Spectrum for New Wireless Networks.

We will need a mix of low-, mid- and high-band spectrum to support our nation's 5G networks. The key addition to that mix is high band, which provides favorable propagation and larger channel sizes to facilitate high capacity services.

Unleashing Investment in Communities Nationwide.

With sufficient spectrum resources, the wireless industry stands ready to invest $275 billion to deploy 5G. This is on top of the $200 billion already invested by wireless companies since 2010. Accenture predicts 5G investment will generate $500 billion in economic growth, along with 3 million new jobs. Roughly 1 out of every 100 Americans will benefit from a new 5G job.

Keeping Americans Safe.

5G will be faster (10x faster than 4G), support more devices (100x more than today's networks) and respond in real-time (5x faster response time). This will have a dramatic impact on all of our lives, and make our lives better and safer. Thanks to 5G, wireless providers will enable breakthrough innovations around remote health care delivery/surgery and connected vehicles, as well as energy, education and other key parts of our lives.

The FCC's Role.

The Commission took a critical step last summer in unlocking the 28 GHz, 37 GHz, 39 GHz, and 64-71 GHz bands for wireless use. To ensure these bands help drive 5G investment, the Commission should build upon its momentum in establishing a regulatory framework for existing and additional millimeter wave bands that ensures sufficient spectrum is made available for exclusive, licensed use.

THE BENEFITS OF 5G.

$275B
NEW WIRELESS INVESTMENT

3M
NEW JOBS

$500B
CONTRIBUTION TO GDP

ctia Everything™ Wireless

1400 16th Street, NW #600
Washington, DC 20036

www.ctia.org
202.736.3200

5 Steps for 5G.

NEW BANDS. Make available for terrestrial mobile use the 18 GHz of new spectrum proposed in the Further Notice.

MOBILE/SATELLITE BALANCE. Maintain a balanced framework to promote investment in both mobile and satellite. The satellite industry has access to 4 times the high band spectrum that terrestrial mobile services do today.

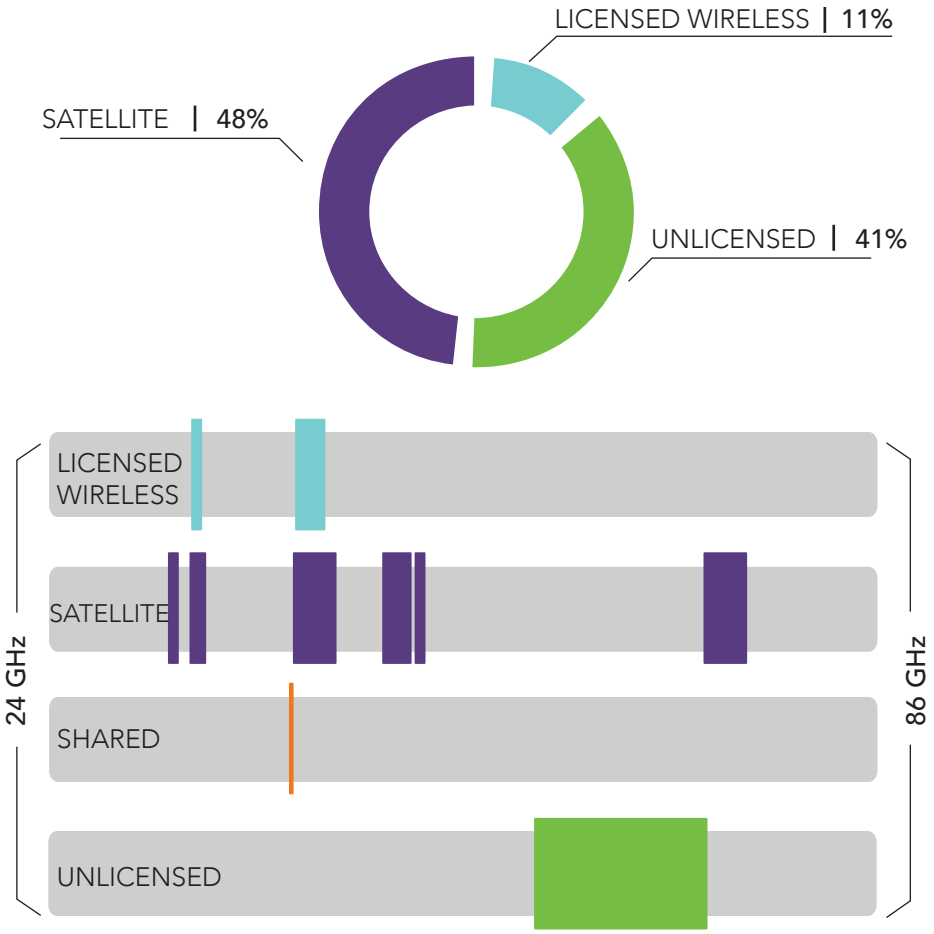
FEDERAL SHARING. Establish a workable sharing framework with federal users in the 37 GHz band to protect federal systems and ensure commercial viability of the band.

EXPAND LICENSED ACCESS. There is more than 3 times more high band spectrum available for unlicensed use than licensed use today. Make available the 66-71 GHz band for licensed operations.

REGULATORY MANDATES. Eliminate the unnecessary cybersecurity mandates to allow the public/private collaboration approach that has worked so well for consumers in 4G to guide our 5G deployments.

Allocations for High Band Spectrum.

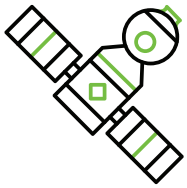
Licensed spectrum has proven critical to our nation's 4G leadership, but there are few licensed opportunities in high band as compared to satellite and unlicensed.



WHO CONTROLS THE HIGH BAND?

WIRELESS
3.85 GHz

UNLICENSED
14 GHz



SATELLITE
16.5 GHz

ctia Everything™ Wireless

1400 16th Street, NW #600
Washington, DC 20036

www.ctia.org
202.736.3200